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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,493	06/19/2001	Vincent Bryan	46739/252170	5642
27683	7590	12/14/2004	EXAMINER	
HAYNES AND BOONE, LLP 901 MAIN STREET, SUITE 3100 DALLAS, TX 75202			STEWART, ALVIN J	
			ART UNIT	PAPER NUMBER
			3738	

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/744,493

Applicant(s)

BRYAN ET AL.

Examiner

Alvin J Stewart

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16 & 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Lines 3-5 are not clear.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The applied reference has common inventors with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

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Claims 1, 2, 4, 7-10, 12, 13, and 16-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Bryan et al US Patent 5,674,296.

Bryan et al discloses a spinal disc implant comprising a cylindrical housing (42 & 44, the plates have cylindrical shape), the housing includes an upper half (42) and a lower half (44) and a plurality of resilient viscoelastic discs (20 & 22) interposed between the housing.

Regarding claim 2, the Examiner interpreted the claims as following: Figure 6 discloses two ovoid discs (one on top of the other) interposed between an upper half (located below vertebrae 372) and lower half (located above vertebrae 374).

Regarding claim 4, see element structures 102 and 104.

Regarding claim 20, see Fig.4, element structure 110.

Regarding claim 21, see Fig. 4.

NOTE: the word “viscoelastic” does not need to be made of hydrogel. See attachment to see the meaning of the word “viscoelastic”.

Claims 1 and 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Navas US Patent 5,375,823.

Navas discloses an implant (see Fig. 4) comprising a cylindrical housing (1), the housing includes an upper half (7) and a lower half (10) and a plurality of resilient viscoelastic discs (4 & 6) interposed between the housing.

Regarding claim 3, the internal cavity is concave and has at least one post (30) extending from the concave surface into a central portion of the disc.

Claims 1, 4-6, 8, 10, 11, 13, and 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Mehdizadeh US Patent 5,928,284.

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Mehdizadeh discloses a spinal disc implant (10) comprising a cylindrical housing (11 & 12), the housing includes an upper half (11) and a lower half (12) and a plurality of resilient viscoelastic discs (13 & filling disclosed in col. 2, lines 51-57) interposed between the housing.

Claims 11, 12, 16, 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Rogozinski US Patent 5,888,226.

Rogozinski discloses a spinal disc implant comprising a cylindrical housing the housing includes an upper half (20) and a lower half (20) and a plurality of resilient viscoelastic discs (10) interposed between the housing.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin J Stewart whose telephone number is 703-305-0277. The examiner can normally be reached on Monday-Friday 7:00AM-5:30PM(1 Friday B-week off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on 703-308-2111. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Alvin J Stewart

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Primary Examiner  
Art Unit 3738

December 10, 2004.

**visceral arch** (*Zool.*). See **viscus**.

**visceral cavity** (*Zool.*). The gill clefts, especially the abdominal gill clefts of higher vertebrates.

**visceral gland** (*Ver.*). See **gland**.

**visceral organ** (*Med.*). See **organ**.

**viscosity** (*Phys.*). A solid or liquid which, when deformed, exhibits both viscous and elastic behaviour through its simultaneous dissipation and storage of mechanical energy. Stiffness typically by polymers of **viscoelasticity** (*Phys.*). An instrument for measuring viscosity. Many types of viscometer employ Potentiostat's formulae for the rate of flow of a viscous fluid through a capillary tube.

**viscose** (*Chem.*). See **cellulose xanthate**.

**viscose fibre** (*Textile*). Fibres of regenerated cellulose made from wood pulp or cotton linterate dissolved in aqueous sodium hydroxide containing carbon disulphide. After pressing the viscous solution through a spinnerette, it forms a filament which, after being washed, it though moist, is regenerated in fibre form by passing it through a series of acid baths.

**viscosity** (*Phys.*). The resistance of a fluid to shear forces, and hence to flow. Such shear resistance is proportional to the relative velocity between the two surfaces on either side of a layer of fluid, the area in shear, the coefficient of viscosity of the fluid and the reciprocal of the thickness of the layer of fluid. For comparing the viscosities of liquids various scales have been devised, e.g. *Redwood No. 1* viscosities (UK), *Saprobolviscosity* (USSR), *Engler degrees* (Germany). See also **kinematic viscosity**.

**viscosity of paint** (*Build.*). The ability of a paint to flow which affects the ease of application of paints.

**viscometer** (*Build.*). A state size, 18 x 10 in. (457 x 254 mm).

**viscosity-damping** (*Phys.*). Opposing force, or torque, proportional to velocity, e.g., resulting from viscosity of oil or from eddy currents.

**viscous flow** (*Phys.*). A type of fluid flow in which fluid particles, considered to be aggregates of molecules, move along streamlines so that at any point in the fluid their velocity is constant or varies in a regular manner with respect to time, random motion being only of a molecular nature. The same is also used to describe *laminar flow* or *streamline flow*.

**viscus** (*Phys.*). The phenomenon of time-lag between the intensity of magnetization and the magnetizing force producing it.

**viscus** (*Med./Zool.*). Any one of the organs situated within the chest and the abdomen: heart, lungs, liver, spleen, stomach, etc. pl. *viscera*, lat. *visceral*.

**viscous** (*Med.*). The sulphate-bearing equivalent of **caseinate** found in mammary milk.

**viscosity** (*Phys.*). The ratio of the luminous flux, in lumens, to the corresponding cross flux, in webers, in a black object of sufficient size can be seen and recognized in normal daylight.

**viscosity curve** (*Image Tech.*). The relation between visibility and wavelength. Owing to varying sensitivity of the eye, this curve indicates a maximum at 555 nm, which is a bright green.

**viscosity factor** (*Telecomm.*). The ratio of the minimum signal input power to a radar, TV or facsimile receiver for which an ideal instrument can detect the output signal, to the corresponding value when the output signal is detected by an observer watching the CRT.

**viscosity meter** (*Measur.*). A meter which attenuates visibility to a standardized value, and measures such visibility on a scale.

**viscous horizon** (*Surv.*). Junction of sea or earth with sky as seen from observer's position. Also called **apparent** or **ascend horizon**.

**visibly** (*Phys.*). Electromagnetic radiation which falls within the wavelength range of 780 to 380 nm, over which the normal eye is sensitive.

**visibly speech** (*Acous.*). (1) Display of oscillogram

[illegible][illegible]